

ORDINANCE NO. 7815

AN ORDINANCE AMENDING FLOODPLAIN REGULATIONS
IN ORDER TO PROTECT CRITICAL FACILITIES AND
MOBILE POPULATIONS IN THE ONE HUNDRED-YEAR AND
FIVE HUNDRED-YEAR FLOODPLAINS INCLUDING
CHAPTER 9-3 "OVERLAY DISTRICTS," SECTION 9-16-1
"DEFINITIONS," B.R.C. 1981; AND SETTING FORTH
RELATED DETAILS.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BOULDER,
COLORADO:

Section 1. Sections 9-3-2 through 9-3-8 B.R.C. 1981 are amended to read:

9-3-2 Floodplains.

- (a) Legislative Intent: The purpose of this section is to regulate certain areas of the city subject to flooding in order to protect the public health, safety, and welfare by:
- (1) Restricting or prohibiting certain uses that are hazardous to life or property in time of flood;
 - (2) Restricting the location of structures intended for human occupancy and regulating the manner in which such structures may be built in order to minimize danger to human life within and around such structures;
 - (3) Requiring that those structures allowed in the floodplain be expanded or enlarged, and equipment and fixtures be installed or replaced, in a manner designed to prevent their being washed away and to assure their protection from severe damage;
 - (4) Regulating the method of construction and replacement of water supply and sanitation systems in order to prevent disease, contamination, and unsanitary conditions;
 - (5) Maintaining for public inspection available maps delineating areas subject to such provisions in order to protect individuals from purchasing or using lands for purposes that are not suitable;
 - (6) Protecting and preserving the water-carrying and water-retention characteristics and capacities of watercourses used for conveying and retaining floodwaters; and
 - (7) Obtaining and maintaining the benefits to the community of participating in the National Flood Insurance Program.
- (b) Flooding May Occur: The degree of flood protection provided by the terms of this section has been determined to be reasonable for regulatory purposes. Floods of greater magnitude will occur, and flood heights may be increased as a result of natural or human-made causes. The provisions of this section do not imply that areas outside of the

floodplain or land uses permitted within the floodplain are free from flooding, flood hazard, or flood damages. A grant or approval by the city under the requirements of this section does not constitute a representation, guarantee, or warranty of any kind or nature by the city or any city official or employee of the practicability or safety of any structure or proposed use, and it creates no liability to or cause of action against the city or any city official or employee for any damages from flood or otherwise that may result from such structure or use.

(c) Scope And Application:

- (1) The requirements of this section supplement those imposed on the same lands by any underlying zoning provisions of this code or other ordinance of the city. If there is a conflict between such requirements, the more restrictive controls.
- (2) If a lot or parcel of land lies partly within the high hazard zone or the conveyance zone, ~~or the flood fringe area~~ the one hundred-year, or the five hundred-year floodplain, the part(s) of such lot or parcel lying within such area or areas shall meet all the standards and requirements of such respective area as prescribed by this section. For the purposes of new construction, if any portion of a structure lies partly within the high hazard zone or the conveyance zone, the one hundred-year, or the five hundred-year floodplain ~~or the flood fringe area~~, all the standards and requirements of this section shall apply to the entire structure.
- (3) If lands located outside the city limits are included within the floodplain, the flood fringe, the conveyance zone or the high hazard zone, the requirements of this section shall apply to such lands upon annexation.

(d) Administration: The city manager shall administer the requirements of this section and shall:

- (1) Determine that the requirements of this section have been met before issuing any permit for development in the floodplain;
- (2) Obtain and maintain for public inspection any certificates of floodproofing required by this section, and any information on the elevation (in relation to mean sea level) of the ~~level of the~~ lowest floor (including basement) of all new or substantially improved structures, and information specifying whether ~~or not~~ such structures contain a basement, and if the structure has been floodproofed, the elevation (in relation to mean sea level) to which the structure was floodproofed;
- (3) Notify Boulder County and the Colorado Water Conservation Board before permitting any change in a watercourse and submit evidence of such notice to FEMA;
- (4) Adopt rules interpreting and implementing the requirements of this ~~section~~ chapter including, without limitation, application procedures for floodplain development permits and specifications for the floodproofing of structures, substantial improvements, and utilities;
- (5) Assure that the Boulder Valley Comprehensive Plan is consistent with the floodplain management objectives of this section and the regulations of FEMA;

- (6) Make necessary interpretations of the exact location of the boundaries of the floodplain, the flood fringe five hundred-year floodplain, the one hundred-year floodplain, the conveyance zone, and the high hazard zone;
- (7) Amend the boundaries of the high hazard zone and the conveyance zone pursuant to subsection (f) of this section;
- (8) Determine that all necessary permits have been obtained from state, federal, or local agencies the approval of which is required before issuing any permit for development in the floodplain;
- (9) Require that persons changing a watercourse maintain the watercourse so that its flood carrying capacity is not diminished;
- (10) Require that new and replacement water supply systems in the floodplain be designed to minimize or eliminate infiltration of floodwaters into the systems;
- (11) Require that new and replacement sanitary sewage systems within the floodplain be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters;
- (12) Require that on-site waste disposal systems be located to avoid impairment to them or contamination from them during flooding; and
- (13) Obtain, review, and reasonably utilize any base-flood elevation and floodway data available from federal, state, and other sources, including data developed pursuant to chapter 9-12, "Subdivision," B.R.C. 1981, as criteria for requiring that all new development meet the requirements of this section. Where the water surface elevation of the five hundred-year flood has not been established or is determined by the city manager to be inconsistent with other available topographic or hydraulic data, the city manager may establish a flood protection elevation based on data sources described in this paragraph.
- (e) Appeals: Any person contesting the city manager's interpretation of a boundary location under paragraph (d)(6) of this section, or any person aggrieved by the granting or denial of a floodplain development permit, may appeal such determination to the planning board through the process described in section 9-4-4, "Appeals, Call-Ups And Public Hearings," B.R.C. 1981. The request shall set forth the reason and basis for the appeal and such other information as the manager may prescribe by rule.
- (f) Map Amendments: As watercourse or flood channel improvements or mapping corrections are made, the city manager may amend the flood regulatory area maps to recognize the changed conditions produced by such improvements or corrections provided that no such amendments or corrections may change a FEMA "area of special flood hazard" or "regulatory floodway" unless the city is in receipt of a letter of map amendment or a letter of map revision issued by FEMA.
- (g) Flood Regulatory Areas:
- (1) The provisions of this section-chapter apply to the areas shown as the five hundred-year floodplain and the one hundred-year floodplain on the most recent maps adopted by the city council, as amended from time to time by the city manager pursuant to subsections (d), (e), and (f) of this section. The regulatory

floodplain encompasses the five hundred-year floodplain, ~~the~~ one hundred-year floodplain, ~~the flood fringe~~, the conveyance zone, and the high hazard zone. The following regulations governing each portion of the floodplain are cumulative and not exclusive.

- (2) In addition to the regulatory areas identified in paragraph (g)(1) of this section, the city has adopted the areas of special flood hazard identified in the Flood Insurance Study for Boulder County, effective October 4, 2002, and delineated on the Flood Insurance Rate Map for Boulder County and the City of Boulder as adopted by the city in compliance with 44 C.F.R. chapter 1. In no event will the regulations contained in this ~~section~~ chapter be interpreted to permit any action not permitted under those regulations promulgated by FEMA for the regulation of areas of special flood hazard and regulatory floodways.

(h) Floodproofing: Whenever this chapter requires floodproofing a building or structure, the following standards shall apply:

- (1) Floodproofing shall comply with any rules prescribed by the city manager for floodproofing and current FEMA National Flood Insurance Program (NFIP) Technical Bulletins;
- (2) The manner of floodproofing shall, without requiring any human intervention, make the building or structure watertight, with walls substantially impermeable to the passage of water;
- (3) The building or structure shall have structural components capable of resisting projected hydrostatic and hydrodynamic loads and the effects of buoyancy; and
- (4) The applicant shall provide a ~~sealed~~ certification in a form acceptable to the city manager from a Colorado registered professional engineer or registered architect certifying ~~that~~ the floodproofing measures comply with this chapter.

(i) Standards for mobile population facilities and critical facilities in the five hundred-year floodplain:

- (1) Floodplain Development Permit Required. No person shall construct a critical facility or mobile population facility in the five hundred-year floodplain without a floodplain development permit under section 9-3-6, "Floodplain Development Permits," B.R.C. 1981.
- (2) Emergency Management Plan Required. No owner or operator of a critical facility or mobile population facility within the five hundred-year floodplain shall fail to develop and have approved an emergency management plan meeting the requirements of this ~~section~~ by January 1 , 2022.
- (A) Emergency management plans shall include either an evacuation plan or a shelter in place plan.
- (i) Evacuation plans shall be ~~sealed and~~ certified by a Colorado registered professional engineer or registered architect, and shall provide a means for safely evacuating occupants to a location outside of the five hundred-year floodplain.

(ii) Shelter in place plans shall be sealed and certified by a Colorado registered professional engineer and shall demonstrate that the structure will be safe to occupy during and after a five hundred-year flood event.

(B) Emergency management plans shall be posted on the inside of each doorway leading to a separate unit in a hotel, motel, dormitory, bed and breakfast, or hostel, and displayed in a prominent location within any assembly group use or a location designed to provide information to persons within the facility that is approved by the city manager.

(C) Emergency management plans shall be completed prior to final inspection for a building permit for new construction, development requiring a floodplain development permit, the addition of any floor area, or any building permit for a substantial improvement.

(3) Construction Requirements for Critical Facilities in the Five Hundred-Year Floodplain. The following requirements apply to critical facilities located in a five hundred-year floodplain:

(A) No owner or operator of a critical facility shall construct or modify a building within the five hundred-year floodplain except in compliance with the requirements of this section;

(B) Any person making an expansion or an enlargement to an existing residential at-risk population or essential services facility shall elevate the lowest floor, including the basement, of the expanded or enlarged portion to or above the flood protection elevation;

(C) Any person making an expansion or an enlargement to an existing nonresidential at-risk population or essential services facility shall floodproof or elevate the lowest floor, including the basement, of the expanded or enlarged portion to or above the flood protection elevation;

(D) Any person making a substantial modification or a substantial improvement to any existing residential at-risk population or essential services facility shall elevate the lowest floor, including the basement, of the entire residential structure to or above the flood protection elevation;

(E) Any person making a substantial modification or a substantial improvement to any existing nonresidential at-risk population facility or essential services facility shall floodproof or elevate the lowest floor, including the basement, of the substantially modified or improved portion to or above the flood protection elevation and shall floodproof or elevate the remainder of the existing structure to or above the flood protection elevation;

(F) Any person constructing a new residential at-risk population or essential services facility shall elevate the lowest floor, including the basement, to or above the flood protection elevation;

1 (G) Any person constructing a new nonresidential at-risk population facility or
2 essential services facility shall floodproof or elevate the lowest floor,
3 including the basement, to or above the flood protection elevation;

4 (H) Any person constructing a new hazardous material building, making a
5 modification requiring a building permit to an existing hazardous material
6 building exceeding twenty-five percent market value of the existing
7 structure within the five hundred-year flood plain, or any development
8 requiring a flood plain development permit, shall secure the hazardous
9 materials from flooding or otherwise being released during a five hundred-
10 year flood event or floodproof the building. The owner shall demonstrate
11 compliance with this standard by providing a sealed certification from a
12 Colorado licensed professional engineer that documents that due to the
13 flood threat and hazardous material storage conditions, hazardous material
14 will not be released at or from the facility during a five hundred-year flood
15 event; and

16 (I) No person owning, operating, or otherwise using a critical facility that
17 stores hazardous materials shall fail to bring its facility into compliance
18 with this paragraph by no later than January 1, 2022.

19 (4) Exemptions for Critical Facilities Protected by Levee Systems. The following
20 applies to critical facilities protected by levee systems within the five hundred-
21 year floodplain or the one hundred-year floodplain.

22 (A) Except for the levee exemption floodplain development permit required
23 under this subparagraph A, new or existing Critical Facilities located
24 landward of a levee system, outside the one hundred-year floodplain under
25 subparagraph B, but within the five hundred-year floodplain, are exempt
26 from the five hundred-year floodplain requirements of Section 9-3-2
27 through 9-3-6 if the levee system owner demonstrates that the levee
28 system provides protection against a five hundred-year flood event by
meeting:

(i) Design criteria consistent with 44 CFR § 65.10, except that the
minimum riverine levee freeboard criterion shall be one foot,
rather than three; and

(ii) Operation and maintenance standards (including an operating and
maintenance manual and periodic freeboard and visual inspections)
that ensure continuing proper function of the structure, consistent
with Rule 10 of the Colorado Rules and Regulations for
Regulatory Floodplains in Colorado. (2 CCR 408-1:10. Criteria for
Determining Effects of Levees on Regulatory Floodplains).

An exemption request under this paragraph requires city manager approval
through a floodplain development permit issued under 9-3-6(j).

(B) New or existing Critical Facilities located landward of an accredited levee or a Provisionally Accredited Levee mapped Zone X (shaded) in accordance with 44 CFR § 65.10 are exempt from all one hundred-year floodplain requirements of Section 9-3-2 through 9-3-6 if operated and maintained in accordance with 44 CFR § 65.10 and Rule 10 of the Colorado Rules and Regulations for Regulatory Floodplains in Colorado (2 CCR 408-1:10. Criteria for Determining Effects of Levees on Regulatory Floodplains).

(C) No person shall fail to construct, operate or maintain, in accordance with this paragraph 4 and 9-3-6(j), a levee system supporting an exemption under this paragraph 4 unless every critical facility so exempted complies with paragraphs (1) through (3) of this subsection (i).

9-3-3 Regulations Governing the Floodplain.

(a) General Provisions: In the entire floodplain, the following standards apply:

(1) Floodplain Development Permit: Except as specified in paragraph (a)(1)(A), no development in the floodplain may occur prior to the issuance of a floodplain development permit pursuant to section 9-3-6, "Floodplain Development Permits," B.R.C. 1981.

(A) Activities exempt from a floodplain development permit: The following activities are allowed within the flood regulatory area and do not require a floodplain development permit:

- (i) "Maintenance" as defined in chapter 9-16 "Definitions" that do not constitute a substantial improvement and do not affect the efficiency or capacity of the conveyance zone or high hazard zone.
- (ii) Sidewalks, concrete, asphalt or stone flatwork that does not result in the establishment or expansion of parking areas and does not modify existing grade by more than six inches.
- (iii) Underground utilities that do not modify existing grade.
- (iv) Poles, lines, cables, sign posts, landscaping and artwork that do not affect the efficiency or capacity of the conveyance zone or high hazard zone.
- (v) Temporary facilities that are not permanently attached to the ground such as tents, traffic control devices and lawn furniture provided that they will not affect the efficiency or capacity of the conveyance zone or high hazard zone, or they will remain in place for no more than 30 days.

(2) Anchoring:

(A) All new construction and substantial improvements or substantial modifications shall be anchored to prevent flotation, collapse, or lateral

movement of the structure and be capable of resisting the hydrostatic and hydrodynamic loads.

(B) All manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement and capable of resisting the hydrostatic and hydrodynamic loads. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties connecting to permanent ground anchors, in addition to any anchoring requirements for resisting wind forces and any tie-down requirements of chapter 10-12, "Mobile Homes," B.R.C. 1981. Requirements shall include, without limitation, the following:

- (i) Over-the-top ties shall be provided at each of the four corners of the manufactured homes. For manufactured homes fifty feet or longer, two additional ties per side are required at intermediate locations. For manufactured homes less than fifty feet long, one additional tie per side is required;
- (ii) Frame ties shall be provided at each of the four corners of the manufactured homes. For manufactured homes fifty feet or longer, five additional ties per side are required at intermediate points. For manufactured homes less than fifty feet long, four additional ties per side are required;
- (iii) All components of the anchoring system shall be capable of carrying a force of four thousand eight hundred pounds; and
- (iv) Any additions to manufactured homes shall be similarly anchored.

(3) Construction Materials And Methods:

- (A) All new construction, substantial improvements, and substantial modifications shall be constructed with materials and utility equipment resistant to flood damage as outlined in FEMA Technical Document 2-93, Flood-Resistant Materials Requirements.
- (B) All new construction, substantial improvements, and substantial modifications shall be constructed using methods and practices that minimize flood damage.
- (C) All new construction, substantial improvements and substantial modifications shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and located (by elevating or floodproofing the components) so as to prevent water from entering or accumulating within the components during flooding conditions.

(4) Utilities:

- (A) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems.

- 1 (B) All new and replacement sanitary sewage systems shall be designed to
2 minimize or eliminate infiltration of floodwaters into the systems and
3 discharge from the systems into floodwaters.
- 4 (C) On-site waste disposal systems shall be located to avoid impairment or
5 contamination during flooding.
- 6 (5) Subdivision Proposals:
- 7 (A) All subdivision proposals shall demonstrate efforts to minimize flood
8 damage.
- 9 (B) All subdivision proposals shall have public utilities and facilities such as
10 sewer, gas, electrical, and water systems located and constructed to
11 minimize flood damage.
- 12 (C) All subdivision proposals shall have adequate drainage provided to reduce
13 exposure to flood damage.
- 14 (D) Base flood elevation data shall be provided for subdivision proposals and
15 other proposed development.
- 16 (E) No subdivision proposal shall create a lot which is unbuildable pursuant to
17 this section.
- 18 (6) Floodproofing: Whenever this section requires a building or structure to be
19 floodproofed, the ~~following~~ standards in subsection 9-3-2(h), B.R.C. 1981 shall
20 be met:
- 21 ~~(A) — Such building or structure shall be floodproofed in accordance with any~~
22 ~~rules for floodproofing promulgated by the city manager pursuant to~~
23 ~~chapter 1-4, "Rulemaking," B.R.C. 1981, and with current FEMA~~
24 ~~National Flood Insurance Program (NFIP) Technical Bulletins;~~
- 25 ~~(B) — Such building or structure shall be floodproofed to the flood protection~~
26 ~~elevation in such a manner that the building or structure is watertight with~~
27 ~~walls substantially impermeable to the passage of water and in a manner~~
28 ~~requiring no human intervention;~~
- 29 ~~(C) — Such building or structure shall have structural components capable of~~
30 ~~resisting projected hydrostatic and hydrodynamic loads and the effects of~~
31 ~~buoyancy; and~~
- 32 ~~(D) — Such floodproofing shall be certified by a Colorado registered professional~~
33 ~~engineer or registered architect to comply with this paragraph. Such~~
34 ~~certifications shall be provided to the city manager as set forth in~~
35 ~~paragraph 9-3-2(d)(2), B.R.C. 1981.~~
- 36 (7) Hazardous Materials: No person shall store a hazardous substance at or below the
37 flood protection elevation for the area of the floodplain in which it is located,
38 except for the storage of fuel gasoline in existing and replacement underground
tanks in existing gasoline-fueling service stations and service garages, which tanks

are designed to prevent infiltration and discharge into floodwaters and which are adequately anchored and shielded against rupture. For purposes of this paragraph, “existing” means in place and in use on January 1, 1989.

- (8) Automobile Parking: Notwithstanding other provisions of this title, no person shall establish an area for automobile parking in any portion of the floodplain where flood depths exceed eighteen inches.
- (9) Flood Warning System: No owner of a hotel, a motel, a dormitory, a rooming house, a hostel, a school, a bed and breakfast, a daycare center, a group home, or a residential or congregate care facility located in the Boulder Creek floodplain shall fail to provide a flood warning system approved by the city manager that is connected to a point of central communication in the building with twenty-four-hour monitoring. No such person shall fail to maintain such a flood warning system.
- (10) Rental Property: No owner of property that is located in ~~at~~^{the} floodplain and subject to a city rental license under chapter 10-3, “Rental Licenses,” B.R.C. 1981, shall fail to post on the exterior of the premises at the entrance a sign approved by the city manager stating that the property is subject to flood hazard and containing such further information and posted at such other locations inside the building as the city manager may require.
- (11) Manufactured Housing: All manufactured homes placed in the city after July 1, 1989, and all manufactured homes which are substantially improved or substantially modified shall be elevated on a permanent foundation so that the lowest floor of the manufactured home is at or above the flood protection elevation and is securely anchored to an adequately anchored foundation system, and shall meet the anchorage and tie-down requirements of paragraph (a)(2) of this section.
- (12) Recreational Vehicles: In order to reduce debris and hazard potential, recreational vehicles shall either: a) be in the floodplain for fewer than one hundred eighty consecutive days, b) be fully licensed and ready for highway use, or c) meet the permit requirements and elevation and anchoring requirements for manufactured homes.
- (13) Structure Orientation: In order to minimize the obstruction to flow caused by buildings, to the extent consistent with other city policies regarding solar access, new structures shall be placed with their longitudinal axes parallel to the predicted direction of flow of floodwaters or be placed so that their longitudinal axes are on lines parallel to those of adjoining structures.
- (14) Existing Uses: The use of any land or structure that was lawful before the application of this ~~section~~^{chapter} or any amendment thereto but that does not conform to the requirements of this ~~section~~^{chapter} may be continued subject to the requirements of this ~~section~~^{chapter}. If such a use not conforming to the requirements of this ~~section~~^{chapter} is discontinued for twelve consecutive months, no person shall use the land or structure thereafter unless such use conforms to the requirements of this ~~section~~^{chapter}.

- 1 (15) New Uses: All uses allowed by the underlying zoning district may be established,
2 subject to the requirements of this section, except for the outdoor or uncontained
3 storage of moveable objects below the flood protection elevation.
- 4 (16) Existing Structures: Any structure in existence before the enactment of this
5 section or any amendment thereto that does not conform to the requirements of
6 this section may remain or may undergo rehabilitation subject to the requirements
7 of this section. Further, any such structure may be otherwise improved as follows:
- 8 (A) Any person making an expansion or an enlargement to an existing
9 residential structure shall elevate the lowest floor, including the basement,
10 of the expanded or enlarged portion to or above the flood protection
11 elevation.
- 12 (B) Any person making an expansion or an enlargement to an existing
13 nonresidential structure shall floodproof or elevate the lowest floor,
14 including the basement, of the expanded or enlarged portion to or above
15 the flood protection elevation.
- 16 (C) Any person making a substantial modification or a substantial
17 improvement to any existing nonresidential structure shall floodproof or
18 elevate the lowest floor, including the basement, of the substantially
19 modified or improved portion to or above the flood protection elevation
20 and shall floodproof the remainder of the existing structure.
- 21 (D) Any person making a substantial modification or a substantial
22 improvement to any existing residential structure shall elevate the lowest
23 floor, including the basement, of the entire residential structure to or above
24 the flood protection elevation.
- 25 (17) New Structures: Construction of new structures shall meet the following
26 requirements:
- 27 (A) Any person constructing a new residential structure shall elevate the
28 lowest floor, including the basement, to or above the flood protection
elevation;
- (B) Any person constructing a new nonresidential structure shall floodproof in
a manner requiring no human intervention or elevate the lowest floor,
including the basement, to or above the flood protection elevation with the
following exceptions:
- (i) Open air carwashes;
 - (ii) Unheated pavilions;
 - (iii) Unfinished or flood resistant building entryways or access areas;
 - (iv) Garden storage sheds;
 - (v) Sidewalks, paving, or asphalt, concrete, or stone flatwork;
 - (vi) Fences; and

(vii) Poles, lines, cables, or other transmission or distribution facilities of public utilities.

(C) Any person constructing a new structure on a property removed from the one hundred-year floodplain through a FEMA Letter of Map Revision Based on Fill (LOMR-F) shall protect the lowest floor, including the basement, to or above the flood protection elevation that existed before placement of fill, as follows:

(i) Residential structures: by elevating the structure; or

(ii) Non-residential structures: by elevating or floodproofing the structure.

(18) Enclosures: Enclosures below the lowest floor that are unfinished or flood resistant, usable solely for parking of vehicles, crawl spaces, building access or storage, in an area that is not a basement, and that are not floodproofed as set forth in this section shall meet the following requirements:

(A) Compliance with the provisions of paragraphs (a)(2), (a)(3), and (a)(4) of this section; and

(B) Design and construction that automatically equalizes hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters.

(i) Designs for meeting this requirement shall meet or exceed the following minimum criteria: a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(ii) Any designs not in conformance with subparagraph (a)(18)(B)(i) of this section, shall be sealed and certified by a registered professional engineer or registered architect and shall conform with FEMA Technical Bulletin 1-93, *Openings In Foundation Walls*.

(C) Fully enclosed areas below the lowest floor subject to this provision, include the following:

(i) Residential garages placed at or above grade;

(ii) Enclosures or vestibules that are attached to structures and that are utilized for storage or entryways;

(iii) Crawl spaces; and

(iv) Outdoor pavilions and patio enclosures with removable walls not located in the high hazard zone.

- (19) Below Grade Crawl Space Construction: New construction, expansion or enlargement, substantial improvement and substantial modification of any below grade crawl space shall meet the following requirements:
- (A) Interior grade elevation that is below the base flood elevation shall be no lower than two feet below the lowest adjacent grade;
 - (B) The height of the below grade crawl space measured from the interior grade of the crawl space to the top of the foundation wall shall not exceed four feet at any point;
 - (C) Adequate drainage systems shall allow floodwaters to drain from the interior area of the crawl space following a flood; and
 - (D) The provisions of paragraphs (a)(2), (a)(3), (a)(4) and (a)(18) of this section shall be complied with.

9-3-4 Regulations Governing The Conveyance Zone.

In the conveyance zone, the following standards apply:

- (a) The provisions of section 9-3-3, "Regulations Governing The Floodplain," B.R.C. 1981.
- (b) The provisions of section 9-3-5, "Regulations Governing The High Hazard Zone," B.R.C. 1981, if the land is also located in the high hazard zone.
- (c) All uses allowed under the provisions of section 9-3-3, "Regulations Governing The Floodplain," B.R.C. 1981, if they are not prohibited by the underlying zoning district or any ordinance of this city, may be established except that no person shall establish or change any use that results in a rise in the elevation of the one hundred-year flood.
- (d) All structures allowed under section 9-3-3, "Regulations Governing The Floodplain," B.R.C. 1981, may be established except that no person shall:
 - (1) Place any structure in the conveyance zone that will result in any rise in the elevation of the one hundred-year flood; or
 - (2) Place any obstruction in the conveyance zone, except a device reasonably necessary for flood management if the device is designed and constructed to minimize the potential hazards to life and property.
- (e) No person shall carry out any other development that results in a rise in the elevation of the one hundred-year flood.
- (f) Localized rises within flood channels or on a specific parcel that is being developed are permissible, if there is no adverse impact on nearby properties and there is no increase in the average water surface elevations along the cross sections of the floodplain.

9-3-5 Regulations Governing The High Hazard Zone.

In the high hazard zone of the floodplain, the following standards apply:

- (a) The provisions of section 9-3-3, "Regulations Governing The Floodplain," B.R.C. 1981.

- (b) The provisions of section 9-3-4, "Regulations Governing The Conveyance Zone," B.R.C. 1981, if the land is also located in the conveyance zone.
- (c) All uses allowed under the provisions of section 9-3-3, "Regulations Governing The Floodplain," B.R.C. 1981, if they are not prohibited by the underlying zoning district or any other ordinance of the city, may be established, except that no person shall:
- (1) Change the use of an existing structure intended for human occupancy from a nonresidential use to a residential use or use as a school, daycare center, group home, residential care facility, or congregate care facility.
 - (2) Establish any new parking lot for motor vehicles.
 - (3) Establish any campground.
- (d) All structures allowed under the provisions of section 9-3-3, "Regulations Governing The Floodplain," B.R.C. 1981, may be established, except that no person shall:
- (1) Construct or place any new structure intended for human occupancy.
 - (2) Expand, enlarge, or make a substantial modification or substantial improvement to any existing structure intended for human occupancy. Notwithstanding this provision, a person may reconstruct a non-flood-damaged structure or portion thereof, which otherwise does constitute a substantial improvement, under the provisions of subparagraphs 9-3-3(a)(16)(C) and (a)(16)(D), B.R.C. 1981.
- (e) Unconditioned, unenclosed building elements such as balconies, awnings, and roof overhangs may extend up to four feet into the high hazard zone if completely located above the flood protection elevation and the remainder of the structure complies with this chapter.

9-3-6 Floodplain Development Permits.

- (a) An applicant for a floodplain development permit shall pay the fee prescribed by section 4-20-44, "Floodplain Development Permits And Flood Control Variance Fees," B.R.C. 1981, and shall complete an application form provided by the city manager that shall include, without limitation, the following:
- (1) The written consent of the owners of all property subject to the development request;
 - (2) A written statement addressing the criteria for approval;
 - (3) A surface view plan showing elevations and contours of the ground; pertinent structures, fill, and storage elevations; sizes, locations, and spatial arrangements of all proposed, anticipated, and existing structures on the site; location and elevations of streets, water supplies and sanitary facilities; and soil types; and
 - (4) Specifications for building construction and materials, filling, dredging, grading, channel improvements and changes, storage of materials, water supply, and sanitary facilities.

- (b) The manager may require the applicant to furnish additional information and details deemed necessary to evaluate the effects of the proposed construction upon the floodplain, including, without limitation:
- (1) Valley cross sections showing the floodplain surrounding the watercourse, cross sections of the area to be occupied by the proposed development, five hundred-year and one hundred-year flood maximum water surface elevation information;
 - (2) A profile showing the slope of the bottom of the channel or thalweg of the watercourse;
 - (3) A floodplain analysis by a Colorado registered professional engineer of the flood profile, elevation, and velocity, using methodology acceptable to FEMA, including existing and anticipated uses and making a determination that the proposed construction or development will not cause a rise in the elevation of the water surface of a one hundred-year flood;
 - (4) A structural analysis by a Colorado registered professional engineer showing that any proposed structures will be adequately designed and constructed to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy and scouring.
 - (5) An applicant for a non-residential floodplain development permit in the five hundred-year floodplain shall indicate whether the facility will contain hazardous material. If the facility will contain hazardous material, the application must include information on the location of the hazardous material and how the hazardous material will be secured to prevent its release during a five hundred-year flood event.
- (c) When reviewing an application for a permit, the city manager shall determine which portion or portions of the floodplain are affected by the particular development request and shall then apply the provisions of sections 9-3-2, "Floodplains," 9-3-3, "Regulations Governing The Floodplain," 9-3-4, "Regulations Governing The Conveyance Zone," and 9-3-5, "Regulations Governing The High Hazard Zone," B.R.C. 1981, as applicable. The manager also shall determine whether the application meets the intent of this chapter prescribed by subsection 9-3-2(a), B.R.C. 1981, after considering the following factors:
- (1) The effects upon the efficiency or capacity of the conveyance zone and high hazard zone;
 - (2) The effects upon lands upstream, downstream, and in the immediate vicinity;
 - (3) The effects upon the one hundred-year flood profile;
 - (4) The effects upon any tributaries to the main stream, drainage ditches, and any other drainage facilities or systems;
 - (5) Whether additional public expenditures for flood protection or prevention will be required;
 - (6) Whether the proposed use is for human occupancy;

- (7) The potential danger to persons upstream, downstream, and in the immediate vicinity;
 - (8) Whether any proposed changes in a watercourse will have an adverse environmental effect on the watercourse, including, without limitation, stream banks and streamside trees and vegetation;
 - (9) Whether any proposed water supply and sanitation systems and other utility systems can prevent disease, contamination, and unsanitary or hazardous conditions during a flood;
 - (10) Whether any proposed facility and its contents will be susceptible to flood damage and the effect of such damage;
 - (11) The relationship of the proposed development to the Boulder Valley Comprehensive Plan and any applicable floodplain management programs;
 - (12) Whether safe access is available to the property in times of flood for ordinary and emergency vehicles;
 - (13) Whether the applicant will provide flood warning systems to notify floodplain occupants of impending floods;
 - (14) Whether the cumulative effect of the proposed development with other existing and anticipated uses will increase flood heights; and
 - (15) Whether the expected heights, velocities, duration, rate of rise, and sediment transport of the floodwaters expected at the site will adversely affect the development or surrounding property.
- (d) If the city manager determines that the applicant meets the purposes and requirements of this chapter, the manager shall issue the permit and may attach such conditions as deemed necessary to further the purposes of this chapter.
- (e) A permit issued on or after April 7, 1985, expires three years after its date of issuance, if the permittee has not commenced construction under the permit. The term “commenced construction” shall mean the first placement of permanent construction of a structure on a site, such as the pouring of slabs or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation; but does not include land preparation, grading and filling, or installation of streets or sidewalks.
- (f) No person who has obtained a permit shall fail to construct in accordance with their approved application and design.
- (g) Floodplain development permits that allow for development in the conveyance zone or the high hazard zone, or which will involve a change of watercourse, shall be decided by the city manager. The decision of the city manager shall be subject to call-up by the planning board, or appeal by any aggrieved party to the planning board, subject to the call-up and appeal procedure of section 9-4-4, “Appeals, Call-Ups And Public Hearings,” B.R.C. 1981.
- (h) A floodplain development permit for any of the following items is effective upon the date of its issuance:

- (1) Sidewalks, parking lots, or other concrete, asphalt, or stone flatwork that do not modify existing grade;
 - (2) Uninhabited overhead structural projections, no portion of which extends below the flood protection elevation; or
 - (3) Rehabilitation of an existing structure in accordance with the definitions in chapter 9-16, "Definitions," B.R.C. 1981. In addition, for properties in the high hazard zone, the rehabilitation shall not result in a prohibited change in use as set forth in subsection 9-3-5(c), B.R.C. 1981.
- (i) No person shall initiate any use after obtaining a permit under this section without first submitting to the city manager a sealed certification by a Colorado registered professional engineer that the development has been completed in compliance with the approved permit application and that all conditions have been fulfilled.
- (j) Floodplain Development Permits for Critical Facility Levee System Exemptions Within the 500-year Floodplain.
- (1) The city manager shall issue a floodplain development permit for new or existing Critical Facilities located landward of a levee system, outside of the one hundred-year floodplain pursuant to 9-3-2(i)(4)(B) but within the five hundred-year floodplain, that comply with 9-3-2(i)(4)(A). The applicant shall submit an application demonstrating compliance, sealed by a Colorado licensed professional engineer. Except for the requirements of 9-3-2(i)(4)(A) and this subparagraph (j), such floodplain development permit shall exempt the Critical Facility from the five hundred-year floodplain requirements stated in 9-3-2 through 9-3-6.
 - (2) At least once every three (3) years, the owner or operator of the levee system shall submit to the city manager a determination from a federal agency, state agency, or a sealed and certified determination from Colorado licensed professional engineer, that the levee system meets the minimum freeboard criteria as set forth in 9-3-2(i)(4)(A)(1) and appears, on visual inspection, to be structurally sound and adequately maintained. The city manager may require the owner or operator to submit such certification more frequently than once every three years if warranted by recent flood conditions or circumstances that may lead to changes in the levee system at the Critical Facility. The permit and exemption shall lapse if this three year determination requirement is not met.
 - (3) All floodplain development permits applications submitted pursuant to 9-3-2(i)(4)(A) shall be reviewed and issued solely in accordance with the criteria set forth in this subparagraph (j) and no other application, analysis, evaluation, construction or design criteria set forth in this 9-3-6 shall apply.
 - (4) Floodplain development permits issued pursuant to this subparagraph (j) are not subject to the additional call-up and appeal procedures set forth in 9-3-6(g).
 - (5) No person shall construct or use a new or existing critical facility exempted by a levee system under 9-3-2(i)(4)(A) and this subparagraph (j) unless the city

manager finds, based on a Colorado registered professional engineer's sealed certification, that the levee system has been completed in compliance with the approved permit application and that all conditions have been fulfilled.

9-3-7 Variances.

- (a) A person wishing to ~~develop in a manner~~~~expand or enlarge an existing structure~~ that does not conform to the requirements of this chapter and cannot be made to conform without unreasonable expense or unreasonable impact on the existing structure may apply to the city manager for a variance from the requirements of ~~subparagraphs~~sections 9-3-2, 9-3-3, (a)(16)(C) and (a)(16)(D) 9-3-4 and 9-3-5, B.R.C. 1981, except that no variance shall be granted for expansion or enlargement of any structure constructed after July 12, 1978, unless such expansion or enlargement conforms to the flood protection elevation requirement in effect at the time of the original construction.
- (b) The city manager shall not grant a variance under this section unless the manager determines that:
- (1) Considering the flood hazard, the variance is the minimum necessary to afford relief;
 - (2) To do so would not result in additional threats to public safety, extraordinary public expense, nuisance, fraud, victimization of the public, or for variances in the conveyance zone a rise in the elevation of the water surface of a one hundred-year flood, or be in conflict with existing provisions of this code or any ordinance of the city; and
 - (3) Failure to grant the variance would result in exceptional hardship to the applicant.
- (c) The manager shall examine the following factors in determining whether or not to grant a variance under this section:
- (1) The danger to life and property due to flooding or erosion damage;
 - (2) The likelihood that the proposed development, in conjunction with existing and anticipated development, may increase flood hazards;
 - (3) The relationship of the proposed development to the Boulder Valley Comprehensive Plan and any applicable floodplain management programs; and
 - (4) The cost of providing essential services such as maintaining and protecting public utility systems, roads, and bridges during and after floods.
- (d) The city manager shall not grant a cumulative total of variances that increases a structure's floor area by more than ten percent of the structure throughout the life of the structure.
- (e) An applicant for a variance shall apply on forms provided by the city manager and pay the fee prescribed by section 4-20-44, "Floodplain Development Permits And Flood Control Variance Fees," B.R.C. 1981, unless a floodplain development permit is required as well, in which case no fee is required for the variance.

- (f) Any decision by the city manager to approve a variance is subject to call-up by the planning board or appeal by any aggrieved party to the planning board as described by section 9-4-4, "Appeals, Call-Ups And Public Hearings," B.R.C. 1981.
- (g) When granting any variance that allows for construction below FEMA's one hundred-year flood protection elevation, the city manager shall provide to the recipient of the variance written notice that the proposed construction does not conform with FEMA guidelines and that the proposed construction and the original structure may be subject to increased flood insurance premiums.

9-3-8 Development Violating Chapter Is Nuisance.

- (a) Every development placed or maintained in the floodplain contrary to the terms of this chapter constitutes a public nuisance that may be enjoined and abated by suit or action by the city or any resident of the city.
- (b) In the event of a flood, when a structure intended for human occupancy located within a high hazard zone is damaged to an extent exceeding fifty percent of its market value before the flood damage occurred, it may not be repaired or replaced, and use of the structure for human occupancy shall cease. After written request of the property owner within ninety days after the date on which the damage occurred, subject to appropriation by the city council of sufficient funds therefore, the city manager shall agree to contract or purchase the land upon which the structure was located at its fair market value after the damage occurred.
- (c) When this section provides for acquisition of a structure and the city manager does not accept as reasonable the values submitted by an applicant, the fair market value shall be determined by an appraiser acceptable to the applicant and the manager, whose cost shall be borne equally by the city and the applicant. If the applicant and the manager are unable to agree upon an appraiser, each shall select an appraiser, whose cost shall be borne by each respective selector, and the two appraisers shall select a third appraiser, whose cost shall be borne equally by the city and the applicant. The value shall be the average of the values determined by the three appraisers.

...

Section 2 Section 9-16-1, B.R.C. 1981 is amended to read:

9-16-1 General Definitions.

- (a) The definitions contained in chapter 1-2, "Definitions," B.R.C. 1981, apply to this title unless a term is defined differently in this chapter.
- (b) Terms identified with the references shown below after the definition are limited to those specific sections or chapters of this title:
- (1) Airport influence zone (AIZ).

- (2) Floodplain regulations (Floodplain).
- (3) Historic preservation (Historic).
- (4) Inclusionary housing (Inclusionary Housing).
- (5) Residential growth management system (RGMS).
- (6) Solar access (Solar).
- (7) Wetlands Protection (Wetlands).
- (8) Signs (Signs).

(c) The following terms as used in this title have the following meanings unless the context clearly indicates otherwise:

...

"Accredited Levee or provisionally accredited levee" means a system of artificial embankment(s) or flood control structure(s) used for property protection, flood control, and flood hazard mitigation accredited or provisionally accredited and mapped Zone X (shaded) by the Federal Emergency Management Agency (FEMA) under the National Flood Insurance Program (NFIP)

...

"Area of special flood hazard" means the land in the floodplain subject to a one percent or greater chance of flooding in any given year. Such areas may be designated as Zones A, AO, AH, AE and A1-30 on the FIRM for the City of Boulder. (Floodplain)

"At-risk population facility" means a pre-school, public or private primary or secondary school, before and after school care center with twelve or more students, daycare center with twelve or more children, group home, or assisted living residential or congregate care facility with twelve or more residents. (Floodplain)

...

"Base flood elevation" is the computed elevation to which floodwater is anticipated to rise during the one hundred-year flood. (Floodplain)

"Basement" means any enclosed area of a building having its lowest floor a minimum of two feet below grade level on all sides. (Floodplain)

...

"Change in a watercourse" means any change in an existing thalweg, bed, or bank of a watercourse. (Floodplain)

...

1 “Conveyance zone” means those portions of the floodplain required for the passage or
2 conveyance of the one hundred-year flood based on equal encroachment (measured in volume of
3 water) of the floodplain from the edges of the flood channel to a point where the one hundred-
4 year flood profile will be raised by six inches or more, after considering a reasonable expectation
5 of blockage at bridges and other obstructions by flood borne debris. (Floodplain)

6 ...

7 “Crawl space” means the enclosed area contained inside the foundation walls and below the
8 habitable floor of a structure. Crawl spaces having the lowest floor a minimum of two feet below
9 grade level on all sides shall be considered a basement, and not a crawl space. (Floodplain)

10 “Critical facility” means any structure or related infrastructure, the loss of which may result in
11 severe hazards to public health and safety or may interrupt essential services and operations for
12 the community at any time before, during, and after a flood. Critical facilities are classified as
13 follows: (1) Essential Services Facility, (2) Hazardous Material Facility, and (3) At-risk
14 Populations Facility. (Floodplain)

15 ...

16 “Development” means any change to improved or unimproved real estate, including, without
17 limitation, constructing, relocating, rehabilitating, reconstructing or expanding or enlarging (but
18 not maintaining) a building or other structure or portion thereof, or establishing or changing a
19 use, or mining, dredging, filling, grading, paving, or excavation. (Floodplain)

20 “Essential services facility” means any facility providing essential services that, if flooded, may
21 result in severe hazards to public health and safety or interrupt essential services and operations
22 for the community at any time before, during, or after a flood that include without limitation,
23 public safety, emergency response, emergency medical, designated emergency shelters,
24 communications, public utility plant facilities and equipment, and government operations.
25 Examples of essential services facilities include without limitation the following:

26 (1) Public safety facilities such as police stations, fire and rescue stations, and
27 emergency operation centers;

28 (2) Emergency response facilities, such as emergency vehicle and equipment storage,
and essential governmental work centers for continuity of government operations;

(3) Emergency medical facilities, such as hospitals, emergency care, urgent care, and
ambulance services but excluding clinics, doctors offices, and non-urgent care
medical facilities;

(4) Shelters designated by the city manager that will be used during or after a flood
for displaced persons;

- (5) Communication facilities, such as main hubs for telephone, main broadcasting equipment for television systems, radio and other emergency warning systems, but excluding towers, poles, lines, cables, and conduits;
- (6) Public utility plant facilities and essential equipment for treatment, generation, storage, pumping, and distribution such as hubs for water, wastewater, power, and gas but excluding hydro electric facilities, towers, poles, power lines, buried pipelines, transmission lines, distribution lines, and service lines;
- (7) Essential governmental facilities necessary for operations including without limitation facilities where public records are stored, courts, jails, building permitting and inspection services, government administration and management, maintenance and equipment centers); and
- (8) Air transportation lifelines, such as an airport or heliport, and structures serving emergency functions, and associated infrastructure (aviation control towers, air traffic control centers, and emergency equipment aircraft hangars). (Floodplain)

...

“Exceptional hardship” means a substantially disproportionate burden in relationship to the benefit to be derived from conformance with the requirements of this title. (Floodplain)

...

“Existing manufactured home park or subdivision” means a manufactured home park for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) was completed prior to July 12, 1978. (Floodplain)

...

“Expansion or enlargement of a structure” means any addition of an exterior wall to the structure or any addition to the floor area of the structure, whether under, at, or above grade, and whether or not the external dimensions of the structure are changed, or the reconstruction of a flood-damaged portion of a structure, so long as such expansion, enlargement or reconstruction does not constitute a “substantial modification” or a “substantial improvement.” (Floodplain)

“Expansion to existing manufactured home park or subdivision” means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, without limitation, the installation of utilities, the construction of streets, final site grading, or the pouring of concrete pads). (Floodplain)

...

1 “FEMA” means the Federal Emergency Management Agency. (Floodplain)

2 ...

3 "Five hundred-year flood" means a flood having a 0.2 percent chance of occurring in any year.
4 (Floodplain)

5 “Flood” or “flooding” means a general or temporary condition of partial or complete inundation
6 of normally dry land areas from a watercourse that temporarily overflows the boundaries within
7 which it is ordinarily confined or from the rapid accumulation of runoff of surface water caused
by rain, snow melt, flow blockage, or any other source. (Floodplain)

8 “Flood channel” means a natural or artificial watercourse with a definite bed and banks which
9 periodically or continuously conducts flowing water and is shown on the Flood Channel
Inventory Map prepared by the city's Utility Division of the Public Works Department.
10 (Floodplain)

11 “Flood fringe” means those portions of the floodplain that are not in the conveyance zone or in
12 the high hazard zone. (Floodplain)

13 “Flood Insurance Rate Map (FIRM)” means the official map on which FEMA has delineated
14 both the areas of special flood hazard and the risk premium zones applicable to the community.
(Floodplain)

15 “Flood insurance study (FIS)” means the official report provided by the Federal Emergency
16 Management Agency that included flood profiles, the Flood Boundary-Floodway Map, and the
water surface elevations of the base flood. (Floodplain)

17
18 “Flood profile” means a graph showing the elevations of the floodwater surface and the
elevations of the underlying land as a function of distance along a path of flow. (Floodplain)

19 “Flood protection elevation” means an elevation of: 1) two feet above the elevation of the water
20 surface of a one hundred-year flood as determined pursuant to sections 9-3-2 through 9-3-8,
21 B.R.C. 1981, or, if no such elevation is determined, two feet above the highest grade adjacent to
a structure, or 2) two feet above the base flood elevation in AE zones or two feet above the flood
22 depth number indicated for AO zones on the FIRM for the City of Boulder, whichever is higher.
(Floodplain)

23
24 "Flood protection elevation - five hundred-year floodplain" means an elevation of one foot above
25 the water surface of a five hundred-year flood under there standards in sections 9-3-2 through 9-
3-8, B.R.C., 1981.

26 “Floodplain” means the area that is inundated by a flood. Unless the context clearly indicates
27 otherwise, “floodplain” refers to the one hundred-year floodplain. (Floodplain)

1 “Floodplain development permit” means any permit granted under the terms and conditions of
2 sections 9-3-2 through 9-3-8, B.R.C. 1981, for development on land in a floodplain. (Floodplain)

3 "Floodplain, five hundred-year" means the area inundated by a flood having a 0.2 percent or
4 greater chance of occurring in any given year. (Floodplain)

5 “Floodplain, one hundred-year” means the area inundated by a flood having a one percent or
6 greater chance of occurring in any given year. (Floodplain)

7 “Floodproofing” means any combination of structural and nonstructural changes, modifications,
8 or adjustments to structures or real property which reduce or eliminate flood damage to improved
9 or unimproved real property, water and sanitary facilities, structures and their contents.
(Floodplain)

10 “Floodway, FEMA regulatory” means the channels of watercourses and the adjacent land areas
11 that must be reserved in order to discharge the base flood without cumulatively increasing the
12 water surface elevation more than one foot. (Floodplain)

13 ...

14 “Hazardous material” means any material used, generated, or stored at a facility of a type and in
15 a quantity that would classify the facility as a hazardous materials facility. (Floodplain)

16 “Hazardous material building” means any structure on a hazardous materials facility in which
17 hazardous material is used, generated, or stored. (Floodplain)

18 “Hazardous material facility” means:

19 (1) A facility subject to Section 303 of the Emergency Planning and Community
20 Right-to-Know Act, 42 USC §11003, because it has on site an “Extremely
21 Hazardous Substance” in quantities that meet or exceed the “Threshold Planning
22 Quantities” established by the United States Environmental Protection Agency
23 and listed at 40 CFR Part 355, Appendix A and Appendix B.

24 (2) Unless covered by subpart (1) above, facilities storing hazardous material as
25 defined by Department of Transportation regulations at 49 CFR Parts 171-180 but
26 only to the extent that the facility is storing the hazardous material in the “Bulk
27 Packaging” container in which it was delivered as that term is defined at 49 CFR
28 171.8.

(3) A facility storing a hazardous substance of the type and quantity listed by §29-22-
107,C.R.S.

(4) A facility regulated as a transfer facility under Colorado hazardous waste
regulations at 6CCR 1007-3, Part 263. (Floodplain)

~~"Hazardous substance" means any substance, as determined from time to time by the city~~
~~manager pursuant to the rule making authority granted by subsection 9-3-2(c), B.R.C. 1981, that~~

1 ~~is flammable, radioactive, toxic, or explosive, and that in times of flooding could be released in~~
2 ~~sufficient quantities to be harmful to humans, animals, or plant life. (Floodplain)~~

3 ...

4 “High hazard zone” means those portions of the floodplain where an unacceptably high hazard to
5 human safety exists defined as those areas where the product number of flow velocity (measured
6 in ft./sec.) times flow depth (measured in feet) equals or exceeds four, or where flow depths
7 equal or exceed four feet. (Floodplain)

8 ...

9 “Intended for human occupancy” means, as applied to structures, capable of and likely to be used
10 for residential habitation, or for commercial, industrial or governmental occupation by persons
11 on a regular basis. Examples of structures normally not intended for human occupancy include,
12 without limitation, garages useable solely for the parking of vehicles or storage, open air
13 carwashes, unheated pavilions, porches or patio covers, crawl spaces, flood resistant enclosures
14 useable solely for building access, barns and other agricultural buildings, garden storage sheds,
15 ATMs, and mausoleums. (Floodplain)

16 ...

17 “Lowest floor” means the lowest floor of the lowest enclosed area (including basement or crawl
18 space). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building
19 access or storage, in an area other than a basement area, is not considered a building's lowest
20 floor, provided that such enclosure is not built so as to render the structure in violation of the
21 applicable design requirements of sections 9-3-2 through 9-3-8, B.R.C. 1981. (Floodplain)

22 ...

23 “Maintenance” means any activity undertaken to repair or prevent the deterioration, impairment
24 or failure of any stream, previously constructed improvement or structure including, without
25 limitation: the removal of sediment and debris, installation of erosion and sediment control
26 devices and the replacement of structural components. Maintenance does not include substantial
27 modifications, substantial improvements, total replacement of existing facilities or total
28 reconstruction of a facility. (Floodplain)

...

“Manufactured home” means a structure, transportable in one or more sections, which is built on
a permanent chassis and is designed for use with or without a permanent foundation when
connected to the required utilities. The term “manufactured home” does not include a
“recreational vehicle.” (Floodplain)

“Manufactured home park or manufactured home subdivision” means any lot or tract of land
designed, used, or intended to provide a location or accommodation for one or more
manufactured homes and upon which any manufactured home or homes are parked or located,

whether or not the lot or tract or any part thereof is held or operated for profit, on which construction was completed on or after July 12, 1978. (Floodplain)

...

“Mobile population facility” means a hotel, motel, dormitory, bed and breakfast, or hostel, as defined in the Boulder Revised Code and an assembly group occupancy or use, as defined in the city’s adopted version of the International Building Code. (Floodplain)

...

“Moveable object” means an item or material not anchored to the ground that is subject to being transported by water, including, without limitation, a manufactured home not anchored to a permanent foundation, a tank, a trash dumpster, lumber, and other materials, but not a motor vehicle. (Floodplain)

...

“New construction” means structures for which the “start of construction” commenced on or after July 12, 1978, and includes any subsequent improvements to such structures. (Floodplain)

“New manufactured home park or subdivision” means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, final site grading, or pouring of concrete pads) is completed on or after July 12, 1978. (Floodplain)

“Nonresidential structure” means any structure or any portion of a structure used exclusively for, or designed as and capable of being used for, office, commercial, industrial, or governmental occupation. (Floodplain)

...

“Obstruction” means any item or material not constituting a moveable object in, along, across, or projecting into the floodplain that might impede, retard, or change the direction of a flow of water, either by itself or by catching or collecting debris carried by such water, in a way that the city manager determines would increase the flood hazard to adjacent properties. (Floodplain)

...

“One hundred-year flood” means a flood having a one percent chance of occurring in any year. (Floodplain)

...

“Reconstruction” means exact replacement of an existing structure or portion thereof or exact structural repair of a damaged structure. (Floodplain)

1 “Recreational vehicle” means a vehicle which is: 1) built on a single chassis; 2) four hundred
2 square feet or less when measured at the largest horizontal projections; 3) designed to be self-
3 propelled or permanently towable by a light duty truck; and 4) designed primarily not for use as
4 a permanent dwelling but as temporary living quarters for recreational, camping, travel, or
seasonal use. (Floodplain)

5 ...

6 “Rehabilitation” means any improvement, maintenance, or remodeling made to the interior or
7 exterior of any existing structure or the reconstruction of a deteriorated or non-flood-damaged
8 portion of an existing structure so long as such improvement or reconstruction does not
9 constitute an “expansion or enlargement of a structure,” “substantial modification,” or a
“substantial improvement.” (Floodplain)

10 ...

11 “Residential structure” means any structure or any portion of a structure that is used for, or
12 designed as and capable of being used for, the temporary or permanent domicile of persons,
13 including, without limitation, a dwelling, a boarding house, a hotel, a motel, and similarly used
structures. (Floodplain)

14 ...

15 “Start of construction” means the date the building permit was issued, provided the actual start of
16 construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement
17 was within one hundred eighty days of the permit date. The actual start means either the first
18 placement of permanent construction of a structure on a site such as the pouring of slab or
footings, the installation of piles, the construction of columns, or any work beyond the stage of
excavation; or the placement of a manufactured home on a foundation. (Floodplain)

19 ...

20 “Structure” means a building or other roofed construction, a basement, a wall, a fence, a
21 manufactured home, or a storage tank. (Floodplain)

22 ...

23 “Substantial damage” means damage of any origin sustained by a structure whereby the cost of
24 restoring the structure to its before-damaged condition would equal or exceed fifty percent of the
market value of the structure before the damage occurred. (Floodplain)

25 “Substantial improvement” means any repair, reconstruction, rehabilitation, addition, or
26 improvement of a structure, the cost of which equals or exceeds fifty percent of the market value
27 of the structure before the “start of construction” of the improvement. This term includes
28 structures which have incurred “substantial damage,” regardless of the actual repair work
performed. For the purposes of this definition, “substantial improvement” is considered to occur

1 when the first alteration of any wall, ceiling, floor, or other structural part of the building
2 commences, whether or not that alteration affects the external dimensions of the structure. The
3 term does not, however, include either: 1) any project for improvement of a structure to comply
4 with existing state or local health, sanitary, or safety code specifications which are solely
5 necessary to assure safe living conditions or 2) any alteration of a structure listed on the National
6 Register of Historic Places or the Colorado Inventory of Historic Places or designated as an
7 individual landmark under section 9-11-2, "City Council May Designate Or Amend Landmarks
8 And Historic Districts," B.R.C. 1981. (Floodplain)

9 ...

10 "Substantial modification" means any expansion or enlargement of a structure which equals or
11 exceeds fifty percent of the floor area of the structure intended for human occupancy, considered
12 cumulatively, commencing July 12, 1978. (Floodplain)

13 ...

14 Section 3. This ordinance shall become effective on the later of January 1, 2012, or 30
15 days after its final passage by the City Council. This ordinance shall apply to all permits and
16 development applications submitted to the city after the effective date of its passage.

17 Section 4. This ordinance is necessary to protect the public health, safety, and welfare of
18 the residents of the city, and covers matters of local concern.

19 Section 5. The City Council deems it appropriate that this ordinance be published by title
20 only and orders that copies of this ordinance be made available in the office of the city clerk for
21 public inspection and acquisition.

1 INTRODUCTION, READ ON FIRST READING, AND ORDERED PUBLISHED BY
2 TITLE ONLY this ____ day of _____, 2011.

3
4
5 _____
Mayor

6 Attest:

7
8 _____
City Clerk on behalf of the
9 Director of Finance and Record

10 READ ON SECOND READING, PASSED, ADOPTED, AND ORDERED
11 PUBLISHED BY TITLE ONLY this ____ day of _____, 20__.

12
13
14 _____
Mayor

15 Attest:

16
17 _____
City Clerk on behalf of the
18 Director of Finance and Record